

REMARKS

The examiner has made a restriction requirement, dividing the claims into five groups (I-V). Applicants provisionally elected Group IV (claims 15-35), and hereby confirm that election, without traverse. The non-elected claims have been withdrawn.

The examiner has rejected claims 15-35 under 35 USC 112, second paragraph, as being indefinite.

Amendments made to claims 15 and 35 address the method of treatment issue raised by the examiner. The claims now call for delivery of a defibrillation shock to the patient when the patient's condition warrants delivery of the shock, and the patient's condition includes whether the patient is determined to have a pulse.

Applicant urges the examiner to reconsider and withdraw the rejection of claims 27, 29, and 30-34 on the basis that they are in the past tense. These claims further define the pulse sensor recited in independent claim 1, and thus are not indefinite. They are properly method claims, as they recite the steps of a method.

The examiner has rejected the two independent claims (15, 35) under 35 USC 102 as anticipated by Joo (US 6440082). The examiner is urged to reconsider and withdraw the rejection. Claims 15 and 35 have been amended to further define over the prior art. Joo fails to disclose at least the following feature found in each of the claims:

"applying a piezoelectric pulse sensor to the patient at a location near a blood vessel that expands as a result of blood pulsing through the vessel, the piezoelectric pulse sensor being configured to detect mechanical motion resulting from the expansion of the blood vessel"

The quoted feature of the claims calls for a piezoelectric pulse sensor configured to detect mechanical motion resulting from expansion of a blood vessel near the sensor. This measurement directly detects the very result that a pulse is expected to achieve -- actual pumping of blood through the circulatory system.

Joo also uses a piezoelectric sensor to detect whether the patient has a pulse, but that is where the similarity with the claimed invention ends. Joo does not detect whether blood is being

pumped through the circulatory system, but instead detects certain "heart sounds" typically produced by the opening and closing of heart valves. It assumes that detection of such sounds is sufficient evidence that blood is being pumped through the circulatory system. The piezoelectric sensor for detecting such sounds is, of course, very different from the one called for by the independent claims. The piezoelectric sensor in the claims must be configured to detect motion caused by expansion of a blood vessel. Detecting such motion calls for detecting different frequencies and magnitudes of energy from what Joo seeks to detect to recognize "heart sounds".

Accordingly, claims 15 and 35 are in condition for allowance.

The remaining claims are all properly dependent on one or more of the independent claims, and thus allowable therewith. Each of the dependent claims adds one or more further limitations that enhance patentability, but those limitations are not presently relied upon. For that reason, and not because applicants agree with the examiner, no rebuttal is offered to the examiner's reasons for rejecting the dependent claims.

Allowance of the application is requested.

The claim amendments made herein are made without prejudice to the original claims being presented in a continuation application.